<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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</thead>
<tbody>
<tr>
<td><strong>SUNDAY • MARCH 19, 2023</strong></td>
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<tr>
<td>4:00 pm – 7:00 pm</td>
<td>Welcome Reception and Registration in the Foyer, Fourth Floor</td>
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<tr>
<td><strong>MONDAY • MARCH 20, 2023</strong></td>
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<tr>
<td>7:00 am – 8:00 am</td>
<td>Registration and Breakfast in the Foyer, Fourth Floor</td>
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<tr>
<td>8:00 am – 8:30 am</td>
<td><strong>Viral Vectors &amp; Vaccines</strong>&lt;br&gt;Salon A/B/C, Fourth Floor</td>
<td></td>
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<tr>
<td>Building a Flexible Platform for the Manufacture of AAV Drug Substance</td>
<td>Nicholas DiGioia&lt;br&gt;Alexion Pharmaceuticals, Inc.</td>
<td></td>
</tr>
<tr>
<td>8:30 am – 9:10 am</td>
<td><strong>Cellular Therapies</strong>&lt;br&gt;Paul D. Fraim Center for Excellence, Fourth Floor</td>
<td></td>
</tr>
<tr>
<td>Venture Beyond Today's Approach: A Unique Cell Engineering Platform for Rapid, Reliable, and Safe Therapeutic Development</td>
<td>Cenk Sumen, PhD&lt;br&gt;MaxCyte Inc.</td>
<td></td>
</tr>
<tr>
<td>9:10 am – 9:20 am</td>
<td><strong>Baculovirus Expression Technology</strong>&lt;br&gt;Salon F/G/H, Fourth Floor</td>
<td></td>
</tr>
<tr>
<td>CRISPR-Aided Baculovirus Genome Probing for Bettering the BEVS Production Platform</td>
<td>Marc G. Aucoin, PhD&lt;br&gt;University of Waterloo</td>
<td></td>
</tr>
<tr>
<td>9:20 am – 10:30 am</td>
<td><strong>Water Break</strong></td>
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</tr>
</tbody>
</table>

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### The ISBioTech 12th Spring Meeting (continued): MONDAY • MARCH 20, 2023

<table>
<thead>
<tr>
<th>Time</th>
<th>Venue</th>
<th>Presentations/Events</th>
</tr>
</thead>
</table>
| 9:20 am – 10:00 am | Viral Vectors & Vaccines  
Salon A/B/C, Fourth Floor | - Stabilization of Biologic Drugs Within a Film Matrix  
Maria A. Croyle, PhD  
University of Texas at Austin |
|               | Cellular Therapies  
Paul D. Fraim Center for Excellence, Fourth Floor | - Analytical Strategies for Cell-Based Gene Therapies with Parvoviral Vector Gene Delivery  
Gillian Payne, PhD  
Carbon Biosciences |
|               | Baculovirus Expression Technology  
Salon F/G/H, Fourth Floor | - Baculovirus Expression Systems: Regulatory Considerations  
Robin Levis, PhD  
FDA CBER |
| 10:00 am – 10:30 am | Morning Break in the Exhibit Hall | |
| 10:30 am – 11:00 am | Technology Workshop  
Salon A/B/C, Fourth Floor  
Gyros US Inc.  
Accelerate Downstream Process Development with Automated Analysis of Viral Vector Titer and Process-Related Impurities | |
| 10:30 am – 11:00 am | Technology Workshop  
Paul D. Fraim Center for Excellence, Fourth Floor  
NextNet Inc.  
Sapiens: A Novel Platform to Accelerate Search into Real Discovery | |
| 10:00 am – 11:30 am | Technology Workshop  
Salon A/B/C, Fourth Floor  
Teknova  
RNA-Based Fluorescent Detection of AAV Infection for Process Optimization | |
| 11:00 am – 11:30 am | Technology Workshop  
Paul D. Fraim Center for Excellence, Fourth Floor  
Charles River  
Pain Points to Potential: Positioning Process and Analytical Development for Next-Gen Cell Therapies | |
| 11:30 am – 12:00 noon | Technology Workshop  
Salon A/B/C, Fourth Floor  
GenScript ProBio  
Development and Manufacturing Strategy for DNA-Based Drug/Vaccine Candidates | |
| 11:30 am – 12:00 noon | Technology Workshop  
Paul D. Fraim Center for Excellence, Fourth Floor  
QbDVision, Inc.  
Digital Strategies for Biotech Product Development and Lifecycle Management | |
| 11:30 am – 12:00 noon | Technology Workshop  
Salon F/G/H, Fourth Floor  
Expression Systems, LLC, An ANGUS company  
Tools for the Application of the Baculovirus and Insect Host Cell System | |
| 11:30 am – 12:00 noon | Technology Workshop  
Salon F/G/H, Fourth Floor  
Univercells Technologies  
Accelerating Development of Gene Therapies Through Truly Scalable Technologies | |
| 12:00 noon – 1:30 pm | Lunch in the Exhibit Hall  
(Poster Session from 1:00 – 1:30 pm) | |
| 1:00 pm – 2:10 pm | Viral Vectors & Vaccines  
Salon A/B/C, Fourth Floor | - CFD Modeling of Plasmid/Cationic Polymer Complexation to Develop a Scalable Triple-Transient Transfection Process  
Oliver Meade  
Resilience |
| 1:00 pm – 2:10 pm | Cellular Therapies  
Paul D. Fraim Center for Excellence, Fourth Floor | - Assays for Cell Therapy Products and Raw Material Qualification  
Benjamin A. Clarke, PhD  
US Pharmacopeial Convention (USP) |
| 1:00 pm – 2:10 pm | Baculovirus Expression Technology  
Salon F/G/H, Fourth Floor | - Platform Development for AAV Manufacturing with the Baculovirus Expression Vector System (BEVS)  
Bas van de Waterbeemd, PhD  
uniQure Biopharma B.V. |
| 2:20 pm – 3:00 pm | CMC Considerations for Adenoviral Vectors  
Anurag Sharma, PhD  
FDA CBER | - Using Relational Risk Analysis for Building Contamination Control Strategies  
Mark F. Witcher, PhD  
Exyte |
| 2:20 pm – 3:00 pm | Water Break | - The Ups and Downs of Baculovirus Very Late (Polyhedrin and p10) Gene Promoters  
Robert D. Possee, PhD  
Oxford Expression Technologies |
| 3:00 pm – 3:30 pm | From Cellular Senescence to an Extracellular Vesicle Toolbox  
Johannes Grillari, PhD  
LBG Ludwig Boltzmann Institute for Traumatology, The Research Center in Cooperation with AUVK (LBI) | - Characterization of Autologous Engineered Tregs for Early Stage Clinical Trials  
Stephen Sofen, PhD  
Abata Therapeutics |
| 3:30 pm – 4:10 pm | Afternoon Break in the Exhibit Hall | - Modified Baculovirus Backbone for Recombinant Seasonal Influenza Vaccine  
Nikolai Khramtsov, PhD  
Protein Sciences Corporation, A Sanofi Company |

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### Monday, March 20, 2023

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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</thead>
<tbody>
<tr>
<td>4:10 pm – 4:20 pm</td>
<td>Water Break</td>
<td></td>
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<tr>
<td>4:20 pm – 5:00 pm</td>
<td><strong>Viral Vectors &amp; Vaccines</strong>&lt;br&gt;Salon A/B/C, Fourth Floor&lt;br&gt;Rapid Optimisations for Cell and Gene Therapy Applications&lt;br&gt;R. André Raposo, PhD&lt;br&gt;Oxford BioMedica plc  &lt;br&gt;<strong>Cellular Therapies</strong>&lt;br&gt;Paul D. Fraim Center for Excellence, Fourth Floor&lt;br&gt;Sourcing Biomaterials; Delivering Impactful Value — A Meaningful Regulation and Testing Review&lt;br&gt;Zachry R. Vavra&lt;br&gt;Versiti Inc.  &lt;br&gt;<strong>Baculovirus Expression Technology</strong>&lt;br&gt;Salon F/G/H, Fourth Floor&lt;br&gt;Strategies for Recombinant Protein Expression and Reconstitution of Multi-Protein Complexes Using the Baculovirus Expression System&lt;br&gt;Arnaud Poterszman, PhD&lt;br&gt;L’Institut de Génétique et de Biologie Moléculaire etCellulaire (IGBMC)</td>
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<tr>
<td>6:00 pm – 8:00 pm</td>
<td><strong>Reception and Lentiviral Vector Reference Material (LVV-RM) Awards</strong> in the Exhibit Hall</td>
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### Tuesday, March 21, 2023

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>7:30 am – 8:30 am</td>
<td>Breakfast</td>
<td>in the Exhibit Hall</td>
</tr>
<tr>
<td>8:30 am – 9:10 am</td>
<td><strong>Viral Vectors &amp; Vaccines</strong>&lt;br&gt;Salon A/B/C, Fourth Floor&lt;br&gt;An Expertise Care Facility for Multimodal Characterization of Extracellular Vesicles for Therapeutic and Diagnostic Purposes&lt;br&gt;Lise Abiven, PhD&lt;br&gt;IVETH Expertise Facility  &lt;br&gt;<strong>Cellular Therapies</strong>&lt;br&gt;Paul D. Fraim Center for Excellence, Fourth Floor&lt;br&gt;Non-Viral Gene Engineering of Cellular Therapies&lt;br&gt;David L. Hermanson, PhD&lt;br&gt;Bio-Techne  &lt;br&gt;<strong>Baculovirus Expression Technology</strong>&lt;br&gt;Salon F/G/H, Fourth Floor&lt;br&gt;Upstream Strategies To Maximize Downstream Yield of AAV Produced in Insect Cells&lt;br&gt;Brooks Hayes, PhD&lt;br&gt;Expression Systems, LLC, An ANGUS company</td>
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</tr>
<tr>
<td>9:10 am – 9:20 am</td>
<td>Water Break</td>
<td></td>
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<tr>
<td>9:20 am – 10:00 am</td>
<td><strong>Continuous Production Of Retroviral Vectors In High Cell Density Culture</strong>&lt;br&gt;Max Planck Institute for Dynamics of Complex Technical Systems&lt;br&gt;Marc Hein, PhD</td>
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<tr>
<td>10:00 am – 10:30 am</td>
<td>Morning Break in the Exhibit Hall</td>
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<tr>
<td>10:30 am – 11:10 am</td>
<td><strong>An Inducible Stable, Helper Virus- and Transfection-Free AAV Manufacturing Platform</strong>&lt;br&gt;Nicole Faust, PhD&lt;br&gt;Cevec Pharmaceuticals GmbH, now part of Cytiva  &lt;br&gt;<strong>Advancing the Manufacture of Human Pluripotent Stem Cell-Based Products for Cardiac Regenerative Medicine</strong>&lt;br&gt;Maria Margarida de Carvalho Negrão Serra, PhD&lt;br&gt;Instituto de Biologia Experimental e Tecnológica (IBET)  &lt;br&gt;<strong>Baculovirus Expression Technology</strong>&lt;br&gt;Salon F/G/H, Fourth Floor&lt;br&gt;Baculovirus Technology Produced SARS-CoV-2 Spike Protein Vaccine Induces Broad, High Affinity and Durable Protective Immunity&lt;br&gt;Gale E. Smith, PhD&lt;br&gt;Novavax, Inc.</td>
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<tr>
<td>11:10 am – 12:20 pm</td>
<td>Water Break</td>
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<tr>
<td>11:20 am – 12:20 pm</td>
<td><strong>Panel Discussion: Viral Vector Reference Materials</strong>&lt;br&gt;Keith L. Carson, ChE, MBA (Moderator)&lt;br&gt;ISBioTech</td>
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Free Afternoon with Recommended Group Activities (included with your registration)

Lunch on your own!

- Pedal Trolley Tour of Historic Downtown Norfolk •
  - Improv 101 Class at Push Comedy Theater •
- Admission to Nauticus and the Battleship Wisconsin with a Guided Tour of the Hampton Roads Naval Museum •
- Victory Rover Cruise of the Elizabeth River •
- Guided Tour of the Chrysler Museum Collection •

See the registration desk to sign up for activities (first come, first served)!

Disco Dancing Banquet at the Pagoda & Oriental Garden
included with your registration

WEDNESDAY • MARCH 22, 2023

7:30 am – 8:30 am
Breakfast in the Exhibit Hall

8:30 am – 9:00 am
Technology Workshop
Salon A/B/C, Fourth Floor
Thermo Fisher Scientific
Scalable Production of AAV from Shake Flasks to 1000L Single Use Bioreactors Using the Gibco™ CTS™ AAV-MAX Production System

9:00 am – 9:30 am
Technology Workshop
Salon A/B/C, Fourth Floor
ElevateBio
LentiPeak: A Robust and Scalable Platform Process for GMP Manufacturing of Lentiviral Vectors

9:00 am – 9:30 am
Technology Workshop
Salon A/B/C, Fourth Floor
Thermo Fisher Scientific
Feeder Free Expansion and Closed, Automated Wash and Concentration of a Clinically Relevant Number of Human NK Cells

9:30 am – 10:00 am
Technology Workshop
Salon A/B/C, Fourth Floor
Charles River
Implementing Sustainable Manufacturing Strategies to Accelerate Gene Therapies

10:00 am – 10:30 am
Morning Break in the Exhibit Hall

10:30 am – 11:10 am
Viral Vectors & Vaccines
Salon A/B/C, Fourth Floor
Viral Safety Testing Strategies for Advanced Therapy Medicinal Products
Horst Ruppach, PhD
Charles River Laboratories

10:30 am – 11:10 am
Cellular Therapies
Paul D. Fraim Center for Excellence, Fourth Floor
Case Study: Impact of Manufacturing Process Changes on the In Vitro Function and In Vivo Efficacy of Gene-Modified CAR/TCR T-cells
Dawn Maier
ElevateBio

10:30 am – 11:10 am
Baculovirus Expression Technology
Salon F/G/H, Fourth Floor
A Multi-Locus Rescue System for Reconstitution of Recombinant Baculovirus Expression Vectors
Christopher Nguyen, PhD
Voyager Therapeutics

11:10 am – 11:20 am
Water Break

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<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>11:20 am – 12:00 noon</td>
<td><strong>Viral Vectors &amp; Vaccines</strong>&lt;br&gt;Salon A/B/C, Fourth Floor&lt;br&gt;Progress and Challenges in Manufacturing of Lentiviral Vectors&lt;br&gt;Vladimir A. Slepushkin, MD, PhD&lt;br&gt;MedTherapy Biotechnology Incorporated</td>
</tr>
<tr>
<td>12:00 noon – 1:30 pm</td>
<td><strong>Process Closure</strong>&lt;br&gt;Paul D. Fraim Center for Excellence, Fourth Floor&lt;br&gt;Process Closure: The Impact on the Manufacturing Risk, Flexibility, and Facility Design for ATMPs&lt;br&gt;Jeffery N. Odum&lt;br&gt;Genesis AEC</td>
</tr>
<tr>
<td>12:00 noon – 1:30 pm</td>
<td>Lunch in the Exhibit Hall • (Poster Session from 1:00 – 1:30 pm)</td>
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<tr>
<td>1:30 pm – 2:10 pm</td>
<td><strong>Cellular Therapies</strong>&lt;br&gt;Sirius Center, Fourth Floor&lt;br&gt;Using an Equivalence Approach to Establish Lot Release Limits for Vector Dose During Pre-Clinical Studies and Early Phase Clinical Trials&lt;br&gt;Nancy Sajjadi&lt;br&gt;Sajjadi Consulting</td>
</tr>
<tr>
<td>1:30 pm – 2:10 pm</td>
<td><strong>Driving Cell Therapy Innovation through End-to-End, Robotic Automation</strong>&lt;br&gt;Victoria Hodgson&lt;br&gt;Cellares Inc.</td>
</tr>
<tr>
<td>2:10 pm – 2:20 pm</td>
<td><strong>Water Break</strong>&lt;br&gt;Water Break&lt;br&gt;Water Break</td>
</tr>
<tr>
<td>2:20 pm – 3:00 pm</td>
<td><strong>Autonomous Parvovirus Vectors for Gene Therapy</strong>&lt;br&gt;Sebastian Aguirre, PhD&lt;br&gt;Carbon Biosciences</td>
</tr>
<tr>
<td>2:20 pm – 3:00 pm</td>
<td><strong>Utilizing a Streamlined Automated Workflow to QC Baculovirus Expression</strong>&lt;br&gt;Jennifer M. Shipman&lt;br&gt;Merck Research Laboratories</td>
</tr>
<tr>
<td>3:00 pm – 3:30 pm</td>
<td>Afternoon Break in the Foyer, Fourth Floor</td>
</tr>
<tr>
<td>3:30 pm – 4:30 pm</td>
<td><strong>Poster Finalist Presentations and Awards</strong> in the Paul D. Fraim Center for Excellence</td>
</tr>
</tbody>
</table>
| 4:30 pm          | **Meeting Adjourns**<br>Meeting Adjourns

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Due to circumstances beyond the control of meeting organizers, this program is subject to change without notice. REV 03/18/2023